

CLAIMS:

1. An oat-balancing feed supplement for equines comprising a mix of components including lysine, iodine, copper, magnesium, zinc and calcium.
- 5 2. A feed supplement as claimed in Claim 1, in which the quantity of lysine present in the feed supplement fed to the animal per day ranges between 3.00g and 18.00g according to the age of the animal.
3. A feed supplement as claimed in Claim 1 or Claim 2, in which the mix of components are present in the following ranges relative to 1g of lysine.

10	Iodine	$5.3 \times 10^{-4} - 7.9 \times 10^{-4}$ g
	Copper	$5.3 \times 10^{-3} - 7.9 \times 10^{-3}$ g
	Magnesium	$2.1 \times 10^{-1} - 3.2 \times 10^{-1}$ g
	Zinc	$1.6 \times 10^{-2} - 2.4 \times 10^{-2}$ g
	Calcium	$5.3 \times 10^{-1} - 8.0 \times 10^{-1}$ g

- 15 4. A feed supplement as claimed in any one of the preceding claims, in which the components of the mix are present in the following optimal ratios calculated relative to 1g lysine:-

20	Iodine	$6.6 \times 10^{-4}$ g
	Copper	$6.6 \times 10^{-3}$ g
	Magnesium	$2.6 \times 10^{-1}$ g
	Zinc	$2.0 \times 10^{-2}$ g
	Calcium	$6.6 \times 10^{-1}$ g

5. A feed supplement as claimed in any one of the preceding claims, in which the feed supplement further includes one or more of the following substances:

25	Vitamin A	Vitamin B <sub>12</sub>
	Vitamin D	Biotin
	Vitamin E	Vitamin C
	Vitamin K	Cobalt
	Folic Acid	Selenium
30	Nicotinic Acid	Methionine
	Pantothenic Acid	Threonine
	Thiamine	Choline

Riboflavin	Iron
Pyridoxine	Manganese

6. A feed supplement as claimed in any one of the preceding claims, in which the or each substance is present in the following ratio ranges relative to 1g lysine

	Optimal Ratio Range
Vitamin A	$2.7 \times 10^3 - 3.9 \times 10^3$ IU/g
Vitamin D	$2.7 \times 10^2 - 3.9 \times 10^2$ IU/g
Vitamin E	$1.0 \times 10^2 - 1.6 \times 10^2$ IU/g
Vitamin K	$2.7 \times 10^{-4} - 3.9 \times 10^{-4}$ g
Folic Acid	$0.8 \times 10^{-2} - 1.2 \times 10^{-2}$ g
Nicotinic Acid	$5.3 \times 10^{-3} - 7.9 \times 10^{-3}$ g
Pantothenic Acid	$2.1 \times 10^{-3} - 3.1 \times 10^{-3}$ g
Thiamine	$2.1 \times 10^{-3} - 3.1 \times 10^{-3}$ g
Riboflavin	$2.6 \times 10^{-3} - 3.8 \times 10^{-3}$ g
Pyndoxine	$1.3 \times 10^{-3} - 1.9 \times 10^{-3}$ g
Vitamin B12	$1.0 \times 10^{-3} - 1.6 \times 10^{-3}$ g
Biotin	$2.1 \times 10^{-4} - 3.1 \times 10^{-4}$ g
Vitamin C	$2.1 \times 10^{-1} - 3.1 \times 10^{-1}$ g
Cobalt	$2.1 \times 10^{-4} - 3.1 \times 10^{-2}$ g
Selenium	$1.0 \times 10^{-4} - 1.6 \times 10^{-4}$ g
Methionine	$2.6 \times 10^{-1} - 4.0 \times 10^{-1}$ g
Threonine	$2.6 \times 10^{-1} - 4.0 \times 10^{-1}$ g
Choline	$4.2 \times 10^{-2} - 6.4 \times 10^{-2}$ g
Iron	$1.6 \times 10^{-2} - 2.4 \times 10^{-2}$ g
Manganese	$1.6 \times 10^{-2} - 2.4 \times 10^{-2}$ g

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7. A feed supplement as claimed in any one of the preceding claims, in which the or each substance is present in the following ratio calculated relative to 1g lysine:-

Vitamin A	$3.3 \times 10^3$ IU/g
Vitamin D	$3.3 \times 10^2$ IU/g
Vitamin E	$1.3 \times 10^2$ IU/g
Vitamin K	$3.3 \times 10^{-4}$ g
Folic Acid	$1.0 \times 10^{-2}$ g
Nicotinic Acid	$6.6 \times 10^{-3}$ g
Pantothenic Acid	$2.6 \times 10^{-3}$ g
Thiamine	$2.6 \times 10^{-3}$ g
Riboflavin	$3.2 \times 10^{-3}$ g
Pyndoxine	$1.6 \times 10^{-3}$ g
Vitamin B12	$1.3 \times 10^{-3}$ g
Biotin	$2.6 \times 10^{-4}$ g
Vitamin C	$2.6 \times 10^{-1}$ g
Cobalt	$2.6 \times 10^{-4}$ g
Selenium	$1.3 \times 10^{-4}$ g
Methionine	$3.3 \times 10^{-1}$ g

Threonine	$3.3 \times 10^{-1}$ g
Choline	$5.3 \times 10^{-2}$ g
Iron	$4.0 \times 10^{-2}$ g
Manganese	$2.0 \times 10^{-2}$ g

8. A feed supplement as claimed in any one of the preceding claims, in which the gross weight of the oat-balancing feed supplement ranges between 5.4g and 8.0g relative to 1g of lysine.
9. A feed supplement as claimed in any one of the preceding claims, in which a filling material is combined with the components and any one of the further substances to bring the oat-balancing feed supplement to a gross-weight ranging between 5.45g and 8.0g relative to 1g of lysine.
10. A feed supplement as claimed in any one of the preceding claims, in which the filling-material is cereal wheat.
11. A feed supplement as claimed in any one of the preceding claims, which is fed to a foal aged 3-6 month in an amount sufficient to provide the animal with  $3.75 \pm 20\%$  lysine per day.
12. A feed supplement as claimed in any of the claims 1 to 10, which is fed to a foal aged 6-12 months in an amount sufficient to provide the animal with  $7.5g \pm 20\%$  lysine per day.
13. A feed supplement as claimed in any one of the Claims 1 to 10, which is fed to a yearling aged 12-18 months in an amount sufficient to provide the animal with  $11.25g \pm 20\%$  lysine per day.
14. A feed supplement as claimed in any one of Claims 1 to 10, which is fed to an adult aged 18+ months in an amount sufficient to provide the animal with  $15g \pm 20\%$  lysine per day.
15. A feed supplement as claimed in any one of the preceding claims, in which the oat-balancing feed supplement is administered to the horses in conjunction with any oat-based diet.